LISTING OF CLAIMS

1. (Currently Amended) A radio frequency device of the type with null ~~nil~~ or quasi-null ~~nil~~ intermediate frequency, intended to receive or transmit ~~send~~ a radio frequency signal whereof the transmit ~~send~~ or receive frequency is part of a frequency range subdivided into ~~frequential~~ frequency channels, ~~characterised in that~~ wherein it comprises on the same electronic chip ~~(PC)~~ frequency transposition means ~~(MX)~~ connected to a local main oscillator ~~(VCOP)~~, and in that a ~~the~~ main oscillator ~~(VCOP)~~ is incorporated inside a main phase locked loop ~~(PLL2)~~ whereof a ~~the~~ reference frequency is supplied by a voltage-controlled auxiliary oscillator ~~(VCOA)~~, itself incorporated into an auxiliary phase locked loop ~~(PLL1)~~ whereof the reference frequency is less than the frequency of the auxiliary oscillator, in that the reference frequency ~~(SRFP)~~ of the main loop is less than the output frequency of the main oscillator, greater than 10 times the ~~frequential~~ frequency spacing of the channels reduced to the output frequency of the main oscillator, and removed by a whole multiple of the transmit ~~send~~ or receive frequency of at least the cut-off frequency of the main loop.

2. (Currently Amended) The device as claimed in Claim 1, wherein ~~characterised in that~~ the auxiliary loop ~~(PLL1)~~ comprises a whole divider ~~(DV1)~~ and in that the reference frequency of the auxiliary loop is less than or equal to, preferably equal to, the ~~frequential~~ frequency spacing of the channels reduced to the reference frequency of the main loop.

3. (Currently Amended) The device as claimed in Claim 1 ~~or 2~~, ~~characterised in that~~ wherein the reference frequency of the main loop is greater than a twentieth of the output frequency of the main oscillator.

4. (Currently Amended) The device as claimed in Claim 1 ~~to 3~~, ~~characterised in that~~ wherein the range of frequencies to which the send or receive frequency belongs is in the vicinity of 900 MHz or 1800 MHz (corresponding to the GSM or DCS standard), the reference frequency of the main loop can be taken as equal to 450 MHz, whereas the reference frequency of the auxiliary loop can be equal to 50 kHz.

5. (Currently Amended) The device as claimed in Claim 1 ~~any one of the preceding claims~~, ~~characterised in that~~ wherein the electronic chip ~~(PC)~~ also comprises the two phase locked loops.

6. (Currently Amended) The device as claimed in Claim 5, ~~characterised in that~~ wherein it is integrally produced on said electronic chip.

7. (Currently Amended) A component of a wireless communications system, ~~characterised in that~~ wherein it incorporates a device as claimed in Claim ~~any one of Claims~~ 1 ~~to~~ 6.

8. (Currently Amended) The component as claimed in Claim 7, ~~characterised in that~~ wherein it forms a cellular mobile telephone.

9. (New) A local oscillator, comprising:

a first phase lock loop receiving a first reference signal and incorporating a first voltage controlled oscillator which generates a second reference signal; and

a second phase lock loop receiving the second reference signal and incorporating a second voltage controlled oscillator which generates a local oscillator output signal.

10. (New) The local oscillator of claim 9 wherein the second reference signal has a frequency that is less than a frequency of the local oscillator output signal, and the first reference signal has a frequency that is less than the second reference signal frequency.

11. (New) The local oscillator of claim 10 wherein the second reference signal frequency is greater than N times the first reference signal.

12. (New) The local oscillator of claim 11 wherein N equals ten.

13. (New) The local oscillator of claim 11 wherein the first reference signal frequency is less than or substantially equal to a frequency spacing between communication frequency channels as reduced to the second reference signal frequency.

14. (New) The local oscillator of claim 11 wherein the second reference signal frequency is in a non-contaminated zone with respect to the local oscillator output signal frequency.

15. (New) The local oscillator of claim 14 wherein the non-contaminated zone is frequencies which are not harmonics or mixes of useful signals.

16. (New) The local oscillator of claim 11 wherein the second reference signal frequency is greater than 1/M of the local oscillator output signal frequency.

17. (New) The local oscillator of claim 16 wherein M is twenty.

18. (New) The local oscillator of claim 11 wherein the second reference signal frequency is large enough to sharply reduce an effect of pulling as to the second voltage controlled oscillator.

19. (New) A frequency synthesizer, comprising:

a double phase locked loop circuit wherein a first phase locked loop outputs a reference signal to a second phase locked loop which produces an output signal, the double phase locked loops operating a different frequencies with the reference signal output by the first phase locked loop having a frequency selected to reduce an effect of voltage controlled oscillator pulling within the second phase locked loop.

20. (New) The frequency synthesizer of claim 19 wherein the reference signal frequency is not perturbed a frequency of use for the output signal.

21. (New) The frequency synthesizer of claim 19 wherein the reference signal frequency is not a harmonic of the frequency of use of the output signal.

22. (New) The frequency synthesizer of claim 19 wherein the reference signal frequency is a fraction of a frequency of the reference signal output.

23. (New) The frequency synthesizer of claim 22 wherein the fraction is a twentieth.

24. (New) The frequency synthesizer of claim 19 wherein the first phase lock loop receives an auxiliary reference signal having a frequency which is less than the reference signal frequency.

25. (New) A radio frequency device of the type with a null or quasi-null intermediate frequency, intended to receive or transmit a radio frequency signal having a frequency that is part of a frequency range subdivided into frequency channels, comprising:

a frequency transposition mixer;

a local main oscillator connected to the mixer;

a main phase locked loop incorporating the main oscillator (VCOP) receiving a first reference frequency;

a voltage-controlled auxiliary oscillator (VCOA) supplying the first reference frequency; and

an auxiliary phase locked loop incorporating the voltage controlled auxiliary oscillator receiving a second reference frequency;

wherein the second reference frequency is less than the first reference frequency; and

wherein the first reference frequency is less than an output frequency of the local main oscillator, is greater than ten times a spacing of the frequency channels reduced to the output frequency of the main oscillator, and is removed by a whole multiple of the frequency for the radio frequency signal of at least the cut-off frequency of the main loop.

26. (New) The device as claimed in Claim 25, wherein the auxiliary phase locked loop comprises a whole divider and in that the second reference frequency of the auxiliary loop is less than or equal to the spacing of the frequency channels reduced to the first reference frequency.

27. (New) The device as claimed in Claim 25, wherein the first reference frequency of the main phase locked loop is greater than a twentieth of the output frequency of the local main oscillator.

28. (New) The device as claimed in Claim 25, wherein the range of frequencies to which the frequency of the main oscillator belongs is in the vicinity of 900 MHz or 1800 MHz, the first reference frequency is about 450 MHz, and the second reference frequency is about 50 kHz.

29. (New) The device as is claim 25 wherein the device is fabricated as an integrated circuit chip.

30. (New) The device as claimed in Claim 29, wherein it is integrally produced on said electronic chip.